

# NSW Forest Monitoring and Improvement Program

**Brungle Tumut Local Aboriginal Land Council**

Aboriginal Cultural values and renewal assessments in  
NSW forests post – wildfires Case Study Report

Prepared for: NSW Forest

Prepared by: Shane Herrington/Neil Byron

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## **PREFACE**

### **Aboriginal values, knowledge and people**

The *NSW Forest Monitoring and Improvement Program Framework 2019-2024* outlines a plan to improve the management of NSW forests through the provision of relevant and timely information to meet the needs of decision makers, stakeholders and the broader community. The Program explicitly links these needs to monitoring, evaluation and research questions that cover ecological, cultural, social and economic outcomes.

The cultural state-wide evaluation question for the Program is

*“To what extent are Aboriginal values, knowledge and people involved in forest management and decision making, and how can it be strengthened in the future ?”*

A cultural working group under the Program is providing leadership and guidance to ensure this question can be answered in meaningful ways by Aboriginal people, with representation from NSW Aboriginal Land Council, Aboriginal staff from Forestry Corporation of NSW and DPE, independent experts and Aboriginal groups as required.

The group is working jointly to guide a state-wide model of Aboriginal cultural values assessment in forests and identify key focus areas and on-ground, community-led projects to trial, help build and tailor the model.

This scope of work addresses one of the immediate cultural focus areas – to undertake a cultural values and renewal assessment in NSW forests post-wildfires.

The aim of the project is to trial and further develop the overarching model of cultural values assessment in NSW forests as part of a scalable state-wide approach across forest tenures, through Aboriginal-led, Country-based assessments, monitoring, and research.

Case studies will be led by local Aboriginal owned organisations to undertake on-ground cultural assessments in their local areas through a community empowerment approach. The coordinator will be an Aboriginal organisation who works closely with the Program’s Aboriginal cultural working group to facilitate the case studies. In some cases, the coordinator may provide further assistance or lead a case study where support is needed.

## **INTRODUCTION:**

### **Who are the people of the Brungle-Tumut LALC and where is our country?**

The Wiradjuri Country of central New South Wales.

The Wiradjuri are one of the largest Indigenous groups in New South Wales, occupying a large area of the South Western Slopes and Plains region of central New South Wales, west of the Great Dividing Range. The Wiradjuri area has been described as "the land of the three rivers", known in English as the Macquarie, the Lachlan and the Murrumbidgee Rivers. The Murray River forms the Wiradjuri's southern boundary, the change from woodlands and open grassland on the plains, to forested mountains, forms our eastern boundary. The case study focuses on the traditional country of the people from Brungle and Tumut area.

This area lies within the south-eastern corner of traditional lands of the Wiradjuri people. Neighbouring and bordering country's include Ngunnawal to the east, Walgalu to the south, and , Dudaroa to the southwest.

Inland New South Wales is part of Australia's agricultural heartland – highly productive and settled for about 200 years. While some of this country was open woodlands, there are still areas of good quality eucalypt forests. There is evidence that fire-stick farming by Wiradjuri people, as elsewhere, may have changed the forest ecosystem in favour of grasslands and fire-tolerant species.

The remnant forests are now mainly in National Parks and State Forests, (where traditional uses are still practiced by Wiradjuri people). Most private owned farms contain small areas of remnant natural vegetation, usually managed for farm-use to provide shelter to farm livestock and sometimes for biodiversity conservation and aesthetics, but Traditional Owners have no access to remnant forests on what is now officially described as private or freehold lands, even areas of considerable cultural significance.

Traditional occupation of the land by the Wiradjuri is evidenced by carved trees and stone tool artefacts- commonly found around rivers which indicate regular seasonal occupation by small groups, found on river flats, on open land and by rivers. Many such sites are found in Brungle Tumut Local Aboriginal Land Council (BTLALC especially along Tumut river and the annabanches such as the Nimbo river that connect small creeks and water flow to wetlands and billabongs (as described below).

The traditional Wiradjuri diet included from the river maangaala (lobster), dhandyuri (fresh water muscles) and fish such as gugabul (Murray cod). In dry seasons, diet would change to suit what was available for the season the Wiradjuri people understood and managed country to sustain food source.

Wambuwuny (kangaroos), wilay (possums), dinawan (emus) and food gathered from the land, including fruits, nuts, murnong (yam daisies), wattle seeds, and orchid tubers are a few sustainable food sources that was relied upon.

The Wiradjuri travelled into alpine areas (Wolgalu) in the summer periods from December to February to engage in annual ceremonies, and would arrive around the same time as the migration of Bogong moths a food source that supported tribes that would journey to these areas for ceremony.

Evidence of large gatherings can be seen at a locations on the Tumut river on the old township of Talbingo.

The migration of the Bogong moth to the alpine areas have declined, researchers observed from 1980 to 2016, and believe that droughts in the breeding grounds have caused this to happen. Scientists seen a crash in numbers from 2017 and 2018 that the Bogong Moth was declared as undetectable.

The 2019-20 Dunns Rd fire that effected 333,940 ha of land included areas that the moth would migrate to annually, upon inspection of Bogong sites there was a massive decline in numbers to almost completey disappear. There maybe a few different reasons for this decline. Bogong moths do not feed over there summertime dormancy in the alpine areas rock, but rely on nectar from plants such as the gravilea on there jouney to the rock crevaces in the Bogong Peaks, due to hot fires and burning of country may have had an effect on flora that flower providing food source for the moth.

Wiradjuri retain strong cultural attachments to our land and a responsibility for custodianship of all flora and fauna. Although there are many native title claims to areas of public lands that had not been alienated, most of the landscapes consist of farms held as freehold title. Forest use by Wiradjuri people is thus restricted to permitted uses on public lands, and they have almost no land under their direct control and management. Like most people in this region, Wiradjuri are adversely affected by periodic severe bushfires accompanying extreme droughts.

This area (west of the Great Dividing Range) has naturally low and extremely variable rainfall, and the main vegetation type is scattered woodlands of eucalypts and acacias. Although often very dry, it is rarely considered officially to be in drought, partly because traditional uses by indigenous people are very well-adapted to frequent long dry periods.

## **Activities**

1. Basic training was delivered to local community members on how to use Avenza mapping to pin locations and navigate using GPS coordinates

Project officer retrieved data from AHIMS and pinned coordinates to Avenza maps for the community members to follow and locate existing sites within the Case Study area. The training enabled community members to relocate and pin any new finds

2. Field trips to identified areas of significance in the case study area

Field trips to the most significant places in the case study area was identified by using the AHIMS mapping and data to locate existing cultural values

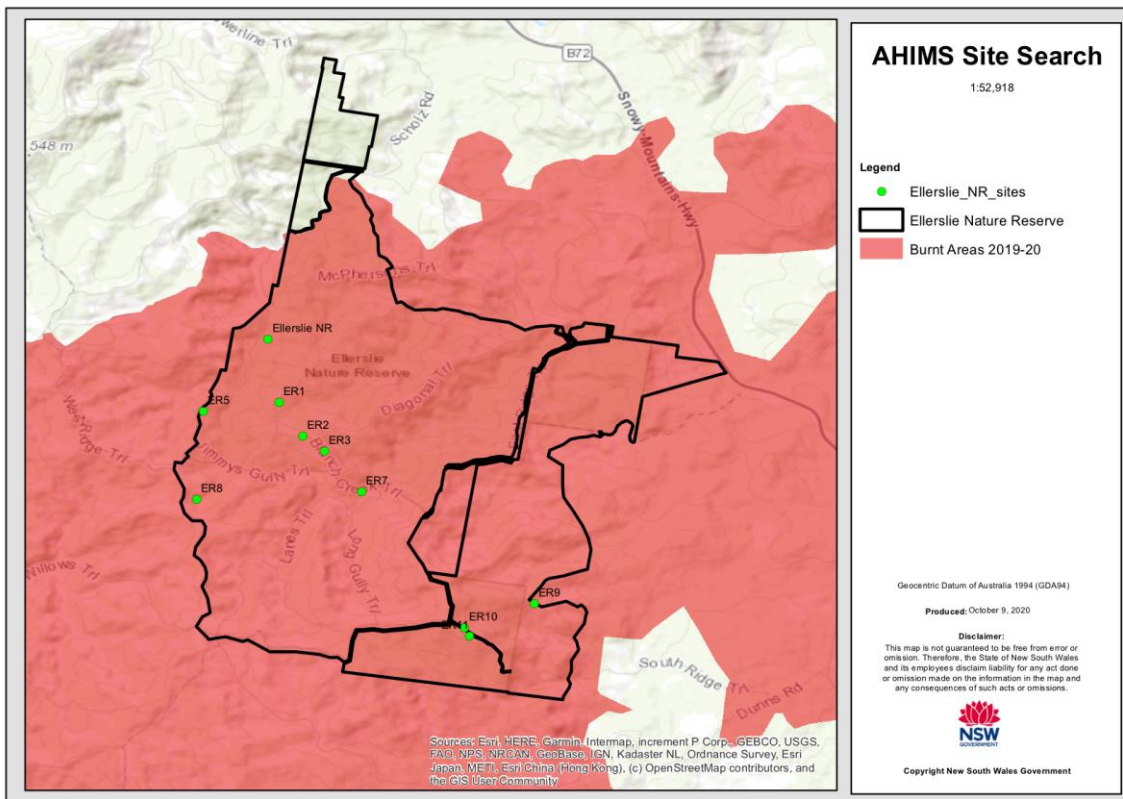
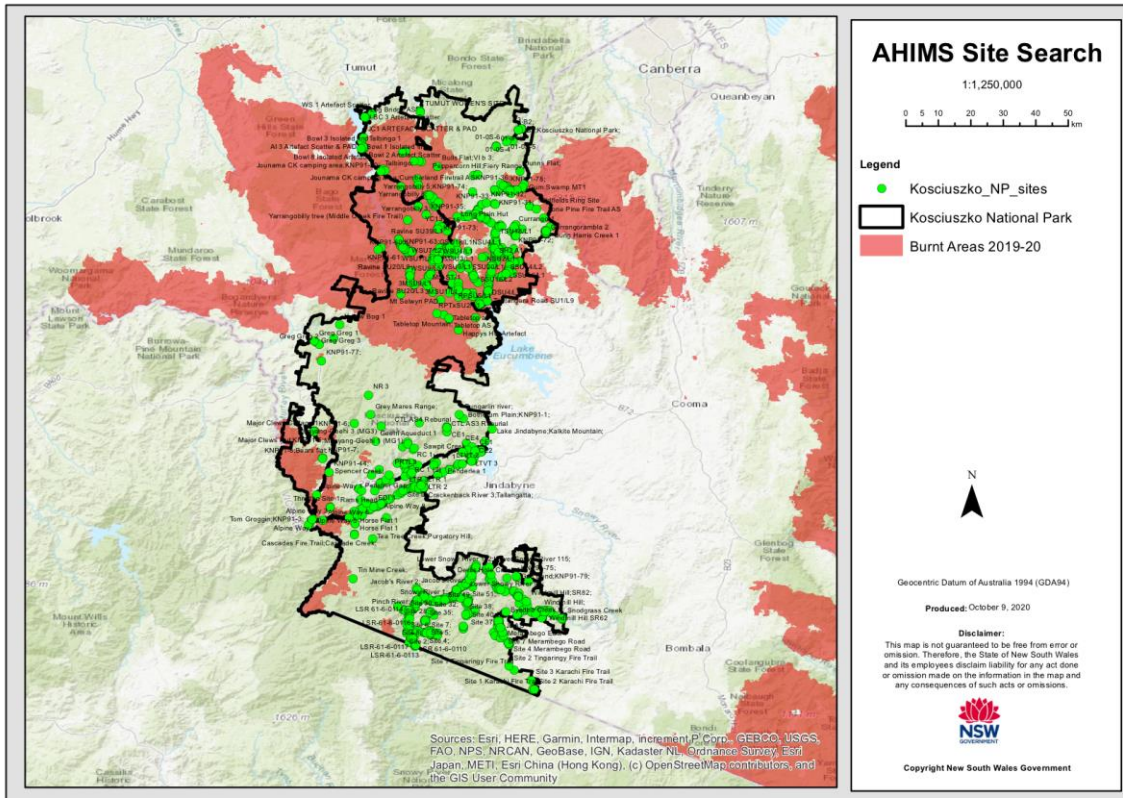
### 3. Recording of new aboriginal sites to AHIMS and updating of existing site cards

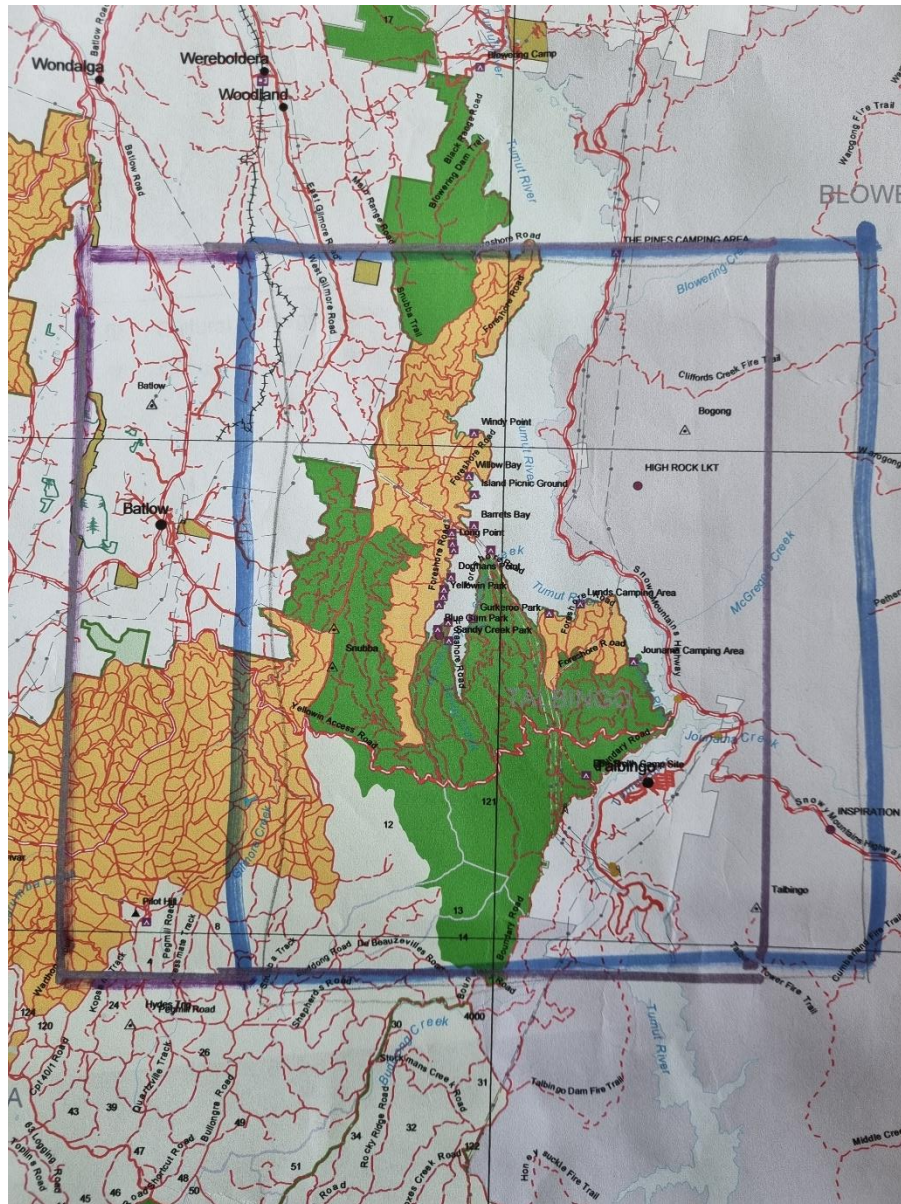
Using the AHIMS station app 35 new artefact sites have been registered to AHIMS and 2 existing site cards updated

*Community members participated in mapping training delivered at TBLALC below*









Field trips to existing cultural sites within the fire effected area's included Ellerslie, Green Hills state forest, Bago State Forest, Jounama Creek and Blowering Dam Foreshores. The above images include AHIMS maps that have sites within the case study area and the bushfire affected country. Given that there are so many sites within the burnt areas of the case study not all existing sites could be inspected.

Over 30 new records of cultural sites included;

- stone artifacts
- campsites

Due to the extreme burning of country stone tool sites become more visible within the landscape as a result of the removal of vegetation by from wildfires given all the environmental impacts together resulted in many damaged sites either from the direct heat or forming of new and existing fire trails



Following the bushfires come heavy rains that had a double effect on country.

Hot fire penetrates below the surface as well as above causing hardening of the bear soils resulting in the soils not being able to retain moisture, heavy rainfall flowing over the surface without any foliage to slow its progress caused many stone artefacts to be disturbed and washed out of situ, some washing onto trails and being impacted by traffic.

- Bulldozers forming fire management trails impacted on artefacts being directly damaged by steel blades cracking and breaking already brittle stone from the heat of the wildfires
- Conservation measures urgently required to protect and preserve cultural values within the case study areas, revegetation of camp sites and layer protection of fire management trails required, the areas of concern can be identified by contacting the project officer of the Case Study project (Shane Herrington)

*Uncle Robert Bulger James Franklin Uncle Ramsay Freeman  
Bago State Forest over looking Blowering Dam resivor*





*Uncle Robert Bulger Jounama Creek Site Identification*



## RESPONSES TO THE KEY QUESTIONS

### 1. What was the condition of cultural values prior to the 2019-20 fires (where known) and what were the important values to the community?

On December 27 2019, a series of intense wildfires starting from a lightning strike on a tree in Ellerslie pine plantation affected large areas of forest in south-eastern Australia covering 334,000 hectares destroying 186 homes and 27 business premises during the black summer bushfires.

Most Australian forests are extremely well-adapted to fire: some species can only regenerate after hot fires; some species have fire-resistant bark, and many have fire-recovery mechanisms like epicormic shoots. So even after an extreme wildfire, some trees survive and the forest ecosystem survives or is sustained, even though there are significant losses of commercial timber (important to FCNSW) and (short-term) losses of culturally important values to local people.

Before the extreme wildfires, the country under FCNSW and NPWS control was heavily forested, with lots of litter on the forest floor making great habitat for reptiles like lizards and snakes. The forests were full of birds – such as cockatoos (both black and white) galahs, rosellas, gang gangs - and many other canopy dwelling animals.

Other Crown lands (apart from State Forests and National Parks) were mainly areas that weren't of interest to non-Indigenous people for anything, as the terrain was either too steep, rocky and low fertility, previously mined or remote. The forest on these areas were in a degraded condition and required rehabilitation.

The mutual interdependence of “Healthy Country” and “Healthy Mob” is now well known across Australia. For example, the outcomes from land and Sea Country Rangers in Northern territory and similar co-management steps elsewhere in NSW. There have been a few attempts to look for ways that Wiradjuri/Walgalu people can gain some commercial and social benefits from management of their traditional land. It remains to be seen how well traditional modes of forest management during droughts translate to commercial ventures.

### 2. How has the fire impacted each of those values and how does this vary across forest types?

The most striking consequences after the big fires in 2019/20 were two things –

- the **silence in the forests** because of the loss of birds and other wildlife, with most being restricted to unburnt areas and corridors along the creeks and edge of Blowering dam; and
- how transparent the landscape because, with so much vegetation removed, the landscape form and layout could be seen very easily, which also happened to make it **much easier to see where to look for (and find) cultural evidence**, where campsites would have been and travel paths forming connections to country and people

The State Forests were heavily impacted by the fires. Apart from the ash-type forests, the stringybark and red box country was severely burnt as well.

We noticed many **indicator plants** such as the silver wattles, a colonising species and an indicator plant of when it is time to prepare for bugaang (bogong) moth harvest and ceremony in the alpine areas of Walgalu country

Purple flower of the *Hardenbergia violacea* which would normally indicate when wandayali (echidna) and other mammals could be hunted, they were missing in the bushfire effected area because their main food source yalgu (ants) were very hard to find due to the bushfire intensity and penetration of heat below the earth surface. (Although in unburnt areas ants and echidnas were moving exactly as normal).

In the waterways invertebrates like surface striders and diving beetles below the surface usually indicate clean water, but after the fires all the creeks were heavily silted because of the run-off and erosion, especially where the creeks meet man-made water reservoirs like Blowering and Jounama. Although the sediments did settle quickly in many creeks the yabbies and water snails could not be seen on the rocks or floor of the creek bed's inspected

So, the overall effect on country and cultural value was evident, but the dams seemed to have really helped in maintaining reasonable water quality for downstream towns such as Tumut

Where there were new tracks made by dozers as part of fire suppression, together with the lost vegetation, it was possible to identify underlying rock types (cherts, Basalts and granites) and related different soil types e.g., harsh red soils and deep rich black soils along the riparian areas and over 30 new artifact sites were mapped. Many of the stone artifacts had been made very brittle due to the heat of the fires. Most of the artifact evidence is on the river flats and lower slopes. We identified an urgent need to revegetate an area near Jounama Ck where important artifacts are being exposed and washed away.

### **3. Are there any gaps in knowledge about the condition of those values and why?**

There are gaps because there are very few local Wiradjuri/Walgalu people working on country, and agencies that are doing land management and care for cultural values don't have access to the required knowledge. For authentic information to be delivered into the decision-making parts of the agencies there will need to be an increase in aboriginal identified positions with a required cultural connection to country and trusted senior people with a cultural connection to country.

Having Indigenous liaison people from other parts of NSW working off country is not good enough when cultural values assessments require local knowledge. While better than nothing – is still not good enough. Local Wiradjuri/Walgalu community think there needs to be senior people who really know their country and with deep cultural knowledge who can be trusted internal advisers to government agencies. We also see this as a step towards co-management and shared decision-making.



**4. What risks to the values have changed because of the fires and are there any emerging risks?**

There is no doubt that the risks to the forests have increased; cultural sites are exposed, visible and unprotected. Under the old saying “healthy Country – Healthy people” anything that adversely affects country will hurt the well-being of the Traditional Owners. On the other hand, being able to contribute and be involved in looking after country, and actively rehabilitating after the extreme wildfires, would be very positive to local people. Exclusion at a time like this would probably be very dangerous to the mental health of Traditional owners and custodians

**5. What innovative tools, resources and processes can be developed to better address these risks in the future?**

We see three very important potential next steps.

The most immediate is for the state agencies that are managing forests (FCNSW and NPWS) on Wiradjuri/Wolgalu (and especially BTLALC) country, to directly employ, in responsible positions, Indigenous people with deep connections to country and considerable knowledge about traditional management practices. This must be much more than a gesture of one or two junior people. We suggest that both BTLALC and the state agencies work together to identify people with the knowledge to contribute to better on-ground practices.

The second related issue would be for technical and subprofessional training in land management to be available in Tumut or Wagga if necessary, so that local teenagers become more aware of career opportunities in working on-country but employed by a responsive and caring state agency.

The third and longer-term measure would be to establish a Cultural Centre in/near the forests, as a focal point for Indigenous knowledge about the forests, landscape and biodiversity, to increase the public visibility and profile of this important knowledge.





## CONCLUSIONS

Expected consequences of worse droughts and fires on the forests and the people whose lives and culture are intimately inter-dependent with the forests.

The frequency, extent, duration and severity of droughts in Australia is highly variable across the continent, and across the centuries. Even though the natural vegetation (and fauna) in Australia has evolved in such a hostile and variable climate and is generally well-adapted to surviving droughts and extreme wildfires, there are always some adverse effects. Western-style management of forests, whether by National Parks or Forestry Corporation, seem to *assume* a constant, benign climate.

Ultimately, if Australia's climate changes as expected, with more frequent, longer-duration, and more severe droughts and fires in the southern half of Australia, this will inevitably affect ecosystem functions of forests, rivers, flora and fauna. In future, our forests are likely to be qualitatively different (even if covering the same location and extent) and so usage patterns will almost certainly need to change. But the details of such changes remain unexplored.

However, the greatest resilience to drought and fires is shown where people (as families and communities) have flexible usage of the forests, based on the *certainty* that severe droughts and fires will occur periodically (rather than a naive hope that they will never occur again). This attitude fosters self-reliance, preparation during the unusually good years for the inevitable drought years,

How can forest management in Australia be improved to enhance resilience and community wellbeing during (and after) droughts and wildfires, especially if there's very high probability that droughts and wildfires will become more frequent and more severe in future, and will occur in areas where previously they were rare?

We have been repeatedly warned what to expect. The first step is knowledge and awareness of what has happened in the past and how that is likely to change in future, in regard to rainfall and temperature trends, and variation around those trends.

From this understanding we can think about preparedness, not to prevent droughts, wildfires and floods, but to be resilient to them, to cope and survive. This is partly bio-physical, partly through improved management. Well-managed, robust and resilient natural forests will not only be able to withstand droughts better, but will also help to reduce the harm to society. This may include reducing stressors on forests from feral animals and pests and diseases. Probably an important part of preparedness will be to have institutional arrangements that encourage flexibility and mobility. Land use and land management may become more episodic and opportunistic, rather than continuous. We need to find ways to reduce the severity of the social and economic impacts on the most vulnerable people in the community when wildfires or droughts do inevitably occur. One way to do so is to reduce the number of people who are vulnerable, by helping them develop more secure and attractive alternative livelihoods.

Thirdly, we can rediscover and improve understanding as people take greater responsibility for their own preparedness. Eco- and cultural-tourism may offer new opportunities to earn a living by looking after country.

We still have significant traditional knowledge and are willing to share knowledge with organisations responsible for managing forests in our Country whether for timber, biodiversity conservation, or multiple uses like recreation and catchment protection

We believe we have been ignored or excluded by state government agencies as well as the private sector) in the past.

We expect recognition, especially a right to be consulted meaningfully about decisions by state agencies that affect our Country and our well-being as the traditional owners and custodians. The practice of co-management of forested lands is becoming increasingly common around Australia and we see no reason why it should not also happen here.

As a part of recognition and acknowledgement, we request support from various agencies of the NSW government for the creation and operation of a Keeping Place for important archaeological, anthropological and cultural evidence and as a focus for sustaining and expanding cultural awareness and knowledge.

**It can be said that FIRE RAIN and WIND are central to Aboriginal Lore. Respect for these elements lies at the heart of many of the laws governing the behaviour of Aboriginal People and they believe that working with these elements instils the discipline required for Aboriginal People to live within the landscape. The elements, living spirits, are inter-related and operate in cycles. One aspect of this interrelationship is that the wind spirit carries the other two on his shoulders. They cannot travel without his help. Failure to show respect for one will be punished by the others. This respect includes acknowledging that fires started by lightning are the deliberate action of the fire spirit. And are there fore not to be interfered with. These fires have been given to the land. The spirits of these elements are extremely ancient and predate plants animals and people on the earth. They are central to beliefs in the beginning of life and its renewal.**

Burning was a spiritual act- in some cases the fires spirit is released to renew particular parts of the landscape but only at prescribed intervals and at prescribed times of the year. The signals for the appropriate time may be found in the position of the stars and /or a stage in a plants or animals life cycle. For example; fire might not be lit until the young of a birds species had left the nest or until a particular plants had finished flowering.

*“For non-Aboriginal people, the most difficult challenge in appreciating Aboriginal knowledge and use of fire is that it is intimately linked with some of the most central and important tenets of Aboriginal lore, common throughout Australia. Unless an individual passes through the various stages of learning, the detail of these spiritual beliefs is not accessible.”*

*“...Given the significance of these beliefs and the Aboriginal people’s detailed knowledge of plants and animals, it is clear that they did not burn the country haphazardly, or at a whim”*

Uncle Rod Mason

